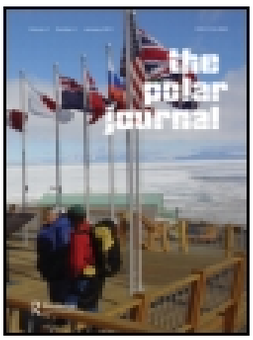

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# Russia's implementation of the Polar Code on the Northern Sea Route

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**ABSTRACT**

Russia has taken numerous steps to harmonise its national legislation with the provisions of the Polar Code. Since its entry into force, there have been a small number of registered violations of the Polar Code on the Northern Sea Route (NSR). To a large extent, this could be explained by the fact that the bulk of navigation on the NSR falls out of the scope of the Polar Code. Another reason is that Russia continues to implement its national navigation rules, which in some cases impose stricter requirements than those of the Polar Code. However, potential risks related to the navigation of vessels in violation of the Polar Code in Arctic waters should not be underestimated. This article also proposes the establishment of an Arctic Port State Control mechanism to address potential challenges associated with the implementation of the Code in the future.

**KEYWORDS**

Arctic; Russia; Polar Code; maritime safety; port state control; Northern Sea Route; law of the sea

## Introduction

As the Intergovernmental Panel on Climate Change observed in its recent report,[1] the Arctic is continuing to warm more than twice as fast as the global average and the sea ice extent is declining precipitously during all months of the year. Due to these trends, shipping activity in the region during the Arctic summer has expanded significantly over the past two decades.[2]

These shipping trends are particularly relevant to the Russian Arctic. The amount of goods transported on the Northern Sea Route (NSR) over the last five years rose from 5,4 million tons to 31,5 million tons in 2019.[3] Although transit shipping on the NSR remains modest (around 700,000 tons[4]), international shipping companies (primarily *COSCO Shipping*) have indicated an increased interest in the NSR as an additional route for the transport of goods between Europe and Asia.[5]

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Although the Northern Sea Route forms only part of the polar waters under Russian jurisdiction, the focus on it is explained by the fact that the NSR accounts for the bulk of shipping in the Russian Arctic, while the key amendments implementing the PC have primarily affected those legal acts that regulate navigation on the NSR.

[1] "The Ocean and Cryosphere."

[2] "The Increase in Arctic Shipping."

[3] "Volumes of cargo transportation on the Northern Sea Route."

[4] Ibid.

[5] Humpert, "Maersk to Return to Arctic."

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In the face of growing shipping activity in Arctic waters in 2014 and 2015, the International Code for Ships Operating in Polar Waters (henceforth: Polar Code, Code, PC) was negotiated under the International Maritime Organization (IMO), a legally binding instrument to meet the challenges related to the safety of navigation and the protection of the marine environment. To date, the Polar Code has been in force for almost four years. Therefore, it seems relevant to take a critical look at the progress of the Code's implementation by the Arctic states.

This article will offer answers to several research questions. In particular, what steps has Russia taken to implement the Polar Code and enforce it on the NSR? Considering the potential increase in shipping on the NSR, what further measures could Russia and other countries offer to strengthen the existing mechanisms aimed at revealing substandard vessels in the Arctic? The first section of this paper provides a short overview of the Polar Code and how it was received in Russia. The second section looks at the legislative measures Russia has taken to harmonise the national legislation with the Polar Code. The third section features the progress of the implementation of the Polar Code and the current situation with regard to compliance by vessels in the waters of the NSR. The final section examines potential risks that might arise regarding the implementation of the Polar Code in the future, as well as possible remedies to address them.

## The Polar Code and reaction in Russia

The Polar Code represents amendments to existing IMO conventions. In November 2014, the IMO adopted the maritime safety provisions of the Polar Code[6] and amendments to the 1974 International Convention for the Safety of Life at Sea (SOLAS)[7] to make the Code legally binding. In May 2015,[8] provisions on pollution prevention and corresponding amendments to the Annexes of the 1973/1978 International Convention for the Prevention of Pollution from Ships (MARPOL) were passed. In November 2016, the IMO[9] made specific amendments to the 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW) and the related STCW Code, providing mandatory training and certification requirements for officers and crew operating in polar waters, which also constitute a part of the Polar Code. With all these pieces in place, the PC entered into force on 1 January 2017.

The Polar Code consists of Part I, related to maritime safety, and Part II, regulating marine environment protection. Each part has separate sections of binding rules (Part I-A and Part II-A) and recommendations (Part I-B and Part II-B). According to the Preamble of the Polar Code,[10] the document was developed to supplement existing IMO instruments in order to increase the safety of ships' operations and mitigate the impact on the people and the environment in remote, vulnerable and potentially harsh polar waters. Part I covers a broad range of rules,

[6] IMO Resolution MSC.385(94).
[7] IMO Resolution MSC.386(94).
[8] IMO Resolution MEPC.265(68).
[9] IMO Resolution MSC.416(97).
[10] International Code for Ships Operating in Polar Waters.

including requirements related to design, construction, ship structure, stability and subdivision, watertight and weathertight integrity, machinery installations, fire safety, life-saving appliances and arrangements, manuals on board, safety of navigation, communication, voyage planning, manning and training. Part II follows the structure of the MARPOL annexes and includes such rules as zero discharges for oil and noxious liquid substances, higher standards for equipment and the discharge of sewage, and restrictions on the discharge of garbage, such as food waste, and the prohibition of the discharge of animal carcases.

As a vital step in the development of Arctic shipping, the Polar Code has received support from the Russian shipping community[11] and many Russian scholars.[12] It should be noted, though, that during the drafting process, Russia's attitude towards some provisions of the Polar Code was ambivalent. While the safety provisions of the Code were considered to be largely consistent with or less strict than Russian national regulations, the proposals related to environmental protection were subject to certain criticisms. They were seen as being harmful to the Russian shipping industry given that the Russian fleet, currently engaged in supplying the northern regions and communities with vitally important goods, is mostly outdated and is not always able to comply with environmental requirements.[13] In particular, the Russian delegation opposed the introduction of a discharge ban on oil and oily mixtures, arguing that compliance would be difficult for ships in the Arctic, especially those that operate for long periods of time between port calls, such as icebreakers and research vessels, whereas upgrades for ships or port reception facilities were seen as a heavy burden for Russia.[14] Although the discharge ban was adopted with a transitional period for vessels operating continuously in Arctic waters for more than 30 days, it was still criticised by the Russian shipping industry.[15]

Despite this fact, in 2018, a senior official from the Russian Ministry of Transport (the agency responsible for regulating maritime shipping), V. Olerskiy, stated that the Polar Code has been a positive and useful instrument providing for the safety of navigation and the protection of the marine environment since its entry into force. He added that the Code does not burden shipping companies with any unreasonable or unrealisable requirements.[16]

## Harmonisation of the Russian national legislation

The provisions of the Polar Code were implemented in Russian legislation through a set of amendments to existing national acts. In particular, on 9 January 2017, the Ministry of Transport issued a decree amending the 2013 Rules of Navigation on the Water Area of the Northern Sea Route.[17] Under the Rules of Navigation through the NSR, vessels should obtain permission from national authorities

[11] "IMO prinjala Poljarnyj kodeks."
[12] See Zagorski, "Implementation of the Polar Code"; Vylegzhanin, Ivanov, Dudikina, "Poljarnyj kodeks."
[13] Zagorski, "Implementation of the Polar Code," 224.
[14] Bognar–Lahr, "In the Same Boat?," 8–10.
[15] Ibid., 7.
[16] "Rossija vystupaet za."
[17] Decree №5 of the Ministry of Transport.

(granted through the Administration of the NSR).[18] To receive permission, a shipowner or shipmaster has to submit a set of documents to the NSR Administration (description of the navigational route and the vessel, insurance, etc.) which, since 9 January 2017, includes a valid Polar Ship Certificate.[19] According to the Polar Code (Regulation 1.3), a Polar Ship Certificate verifies that a vessel complies with the relevant requirements of the Polar Code and is issued after an initial or renewed survey of the vessel.

Under the Polar Code (Regulation 1.3.4), a Polar Ship Certificate shall be issued either by the flag state administration or by any person or organisation recognised by it. In practice, many flag states authorise recognised organisations to conduct surveys and to issue ship certificates.[20] This is consistent with the relevant SOLAS (Regulations 6 and 12 of Chapter I) and MARPOL (Regulations 6 and 7.2 of Annexe I) provisions. Moreover, under Reg. II-1/3-1 of SOLAS, ships must meet the structural, mechanical and electrical requirements of a recognised classification society.

To comply with these regulations, Russia has tasked the Russian Maritime Register of Shipping (RS), a member of the International Association of Classification Societies (IACS),[21] with conducting surveys of vessels flying the Russian flag, the aim being to ensure compliance with the Polar Code and the issuing of Polar Ship Certificates.[22] The first vessel to receive a Polar Ship Certificate was 'Shturman Albanov' in December 2016.[23] Apart from that, to date, the Russian Maritime Register has been authorised by the flag administrations of 32 states to perform reviews, carry out surveys and issue certificates under the Polar Code.[24]

In October 2016, the Russian Register adopted non-binding guidelines on the Application of the International Code for Ships Operating in Polar Waters (Polar Code), intended for surveyors, crews and shipowners.[25] The document aims to facilitate an understanding of the requirements of the PC applicable to a specific ship during surveys. The guidelines describe the procedures related to carrying out a survey and issuing a Polar Ship Certificate, as well as the requirements for the operational and environmental seaworthiness of ships intended for operation in polar waters.

A major achievement of the guidelines is that an existing gap in the Polar Code has been filled with regard to ice class equivalency. The Polar Code has elicited criticism in Russia for its failure to clearly harmonise all existing ice classifications owing to fundamental differences in approaches by various ship-classification societies.[26] There is no

[18] It should be noted that on 18 September 2020, the Russian Government approved an updated version of the Rules of Navigation on the Water Area of the Northern Sea Route. According to the new text, permissions to enter the NSR are granted by the Federal Agency for Maritime and River Transport of Russia or a subordinate organisation. The decisions concerning the permissions should be approved by a special Maritime Operations Headquarters to be established by Rosatom (Reg. 2 and 3; see also the Federal Law of the Russian Federation №525-FZ). It is still not clear what agency will be responsible for issuing permissions. However, judging from the latest available data of the Administration of the NSR, it is continuing to grant permissions after the adoption of the new version of the Rules. For the sake of simplicity, this paper will further refer to the NSR Administration as the principal agency responsible for granting permissions.

[19] Rules of Navigation, Reg. 5 ('ж').

[20] Yang, "Implementation of Port State Control," 6.

[21] "Members of the International Association of Classification Societies."

[22] "RS upolnomochen osvidetel'stvovat."

[23] "RS issues the first Polar Ship Certificate."

[24] "Authorizations of RS by Flag Administrations."

[25] "Guidelines on the Application."

[26] Banshhikova, "Mezhdunarodnyj kodeks," 44; Mednikov, "Polar Code: Critical Assessment," 18.

legally binding correspondence between existing ice classifications, between them and the ice classes developed by IACS, or between these classes and categories of vessels introduced by the Polar Code. However, the developers of the Polar Code attempted to assist the shipping community in determining ice class equivalency. According to 'Additional Guidance for Chapter 3', the basic approach involves comparing ice classes to the IACS Polar classes and using the guidance to define approximate correspondence between different ice classifications developed by HELCOM.[27] The Polar Code also provides guidance for determining equivalency between IACS Polar classes and ice categories of the Code by making relevant references in Chapter 3 (Ship Structure) and Chapter 6 (Machinery Installations). Still, the Code leaves much to the discretion of shipowners, classification societies and national authorities as the principal responsible parties.[28] Against this backdrop, the Russian Register's guidelines clarify the requirements of the PC as regards ship structure (Section 3), stability and subdivision (Section 4), machinery installations (Section 6) in correspondence with the ice classes developed by the Russian Register, ice classes of IACS and the PC's categories of vessels.

## Progress of the PC's implementation on the NSR

It should be noted that the bulk of vessel traffic through the NSR does not fall under the PC provisions. Since the Code amends existing IMO conventions, the scope of its application is limited by these instruments. Under Chapter XIV of SOLAS (which was introduced in order to incorporate the PC into the SOLAS Convention), the Code's provisions shall apply to 'ships operating in polar waters, certified in accordance with Chapter I' of SOLAS (Regulation 2(1)). Accordingly, ships which are exempt from the SOLAS application due to Chapter I are not covered by the Polar Code either. As a rule, SOLAS applies only to ships engaged on international voyages (Regulation 1, Chapter I).[29] An 'international voyage' under SOLAS is defined as a 'voyage from a country to which the Convention applies to a port outside such country, or conversely' (Regulation 2). Further limitations refer to specific categories of ships. Under Regulation 3, Chapter I of SOLAS, its rules (unless expressly provided otherwise) do not apply to military ships, ships of less than 500 tons gross tonnage, ships not propelled by mechanical means, wooden ships of primitive build, pleasure yachts not engaged in trade, and fishing vessels. Chapter XIV provides additional wording. Regulation 2 (4) stipulates that ships owned or operated by a contracting state and used only in non-commercial government service are exempt from the regulations. In terms of the Code's environmental requirements, MARPOL shall not apply to any warship, naval auxiliary or other ship owned or operated by a state and used, for the time being, only for government non-commercial service (Article III of MARPOL). Annexes of MARPOL also offer additional exemptions (Regulations 13 c, 13 g, 13 h of Annexe I; Regulation 11 of Annexe IV, etc.).

[27] Annexe to HELCOM Recommendation.
[28] Additional Guidance for Chapter 3 of the PC: 'The responsibility for generating the equivalency request and supporting information required should rest with the owner/operator. Review/approval of any equivalency request should be undertaken by the flag State Administration, or by a recognised organisation acting on its behalf under the provisions of the Code for Recognised Organizations (RO Code)'.
[29] Chapter V (Safety of navigation), however, applies to ships on all voyages.

Against this backdrop, the provisions of the PC cover only a small number of ships active on the NSR. According to the latest available data,[30] in 2017 the total number of voyages amounted to 1908, out of which only 82 (4%) definitely fell within the notion of 'international voyage',[31] since most of the operations were voyages between Russian ports (both within and outside the NSR boundaries). On the other hand, in 2019, the overwhelming majority of voyages (2536 out of 2694) were made by ships with an ice class, with only 158 (6%) made by non-ice strengthened vessels. The reason is that under the Russian national rules of navigation through the NSR, voyages of no-ice class ships are allowed only in very limited circumstances. The relationship between the PC and the national legislation will be discussed in the following section.

Due to a relatively small volume of shipping being subject to PC regulations, there is far too little data available for an adequate evaluation of the level of compliance by vessels with the Code. However, an overall picture can be drawn based on the mandate of the Administration of the NSR to refuse to issue permission to enter the NSR. In the period from January 2017 (after the national legislation was harmonised with the Polar Code) to September 2020, the Administration rejected 15 applications out of 3124 on the grounds that vessels did not provide a Polar Code Certificate.

## Potential future challenges

Despite the low volume of shipping subject to PC regulations on the NSR today and a low number of registered violations, the situation may change drastically in the coming decades. Arctic shipping is expected to grow further as the northern routes become increasingly accessible.[32] In May 2018, President Vladimir Putin signed a decree requiring the government to ensure the increase of cargo shipped through the NSR to 80 million tons annually by 2024.[33] Although the main share of the shipping on the NSR will continue to be the transportation of resources extracted in the Russian Arctic (oil, LNG, coal, etc.),[34] the state administration also has plans to develop international transit.[35] With the number of ships on the NSR growing, the challenges related to non-compliance with the Polar Code's provisions will also increase.

A major risk stems from certain vulnerabilities existing in the Code. The safety provisions of the PC are structured around Goal-Based Standards (GBS). This approach implies that each chapter of Part I sets out an overall goal, a functional requirement to reach the goal, and a regulation that prescribes measures to fulfil the functional requirement.[36] The benefits of GBS compared to a prescriptive approach include more room to manoeuvre for national competent authorities and flexibility in choosing the appropriate measures, given the limited technological possibilities in the field of polar

[30] Statistical information in this Section is based on the data of the Northern Sea Route Information Office (Available at https://arctic-lio.com) and the Administration of the Northern Sea Route (Available at http://nsra.ru/en/home.html).
[31] The additional number of international voyages could be derived from the category of destination traffic from the NSR ports, which amounted to 657 voyages (34% of all traffic)in 2017. However, the data available do not differentiate between domestic and international voyages from the NSR ports, therefore, this number remains unclear. See "Detailed Analysis of Ship Traffic."
[32] "The Ocean and Cryosphere," Chapter 3, section 3.2.4.3.
[33] "National Goals and Strategic Targets."
[34] Burmistrova and Fadeeva, "Rosatom Suggested Lowering."
[35] Sevastyanov and Kravchuk, "Russia's Policy to Develop Trans-Arctic Shipping."
[36] Grant, "Implementation of the Polar Code," 196.

shipping.[37] Conversely, the goal-based approach also entails significant vagueness in some provisions.[38] The regulations of Part I leave much to the discretion of administrations, shipowners and classification societies to interpret how they will comply with the functional requirements and meet the overall goals. Yet, the ultimate and full responsibility for issuing a Polar Ship Certificate is borne by the national authorities of the relevant flag state (Regulation 1.3.4. of the Code).

The Russian expert community has been critical of the Code's GBS approach.[39] The main problem is that GBS could grant excessive discretion to a group of people who may not be competent and capable of assessing real polar navigation needs, while Arctic shipping requires special knowledge, skills and experience possessed by a relatively small number of professionals.[40] This challenge is partially addressed through delegation of the administrative powers over vessels (to conduct surveys and to issue ship certificates) to recognised organisations experienced in polar navigation. As noted above, the Russia Maritime Register has contracts with 32 flag administrations, many of which are flags of convenience.[41]

However, classification societies cannot solve all the problems associated with the implementation of the PC. At the time of conducting a survey and issuing a Polar Ship Certificate, the classification societies and flag administrations would not be able to estimate the exact weather and ice conditions of the areas the vessel is intended to navigate in advance and thus adequately assess the seaworthiness of a certain vessel for a specific voyage.

A potential back-up measure could be to implement the Arctic coastal state's national legislation related to navigation in polar areas. As most Russian scholars point out, the adoption of the PC has not affected the special rights of the Arctic states, stipulated in particular in Art. 234 of the 1982 UN Convention on the Law of the Sea (UNCLOS), to unilaterally establish national standards for vessel activity in their Exclusive Economic Zones (EEZs) in the Arctic Ocean, which may be stricter than those stipulated by the Code.[42] The national rules of Russia, as well as other Arctic coastal states, could impose more detailed prescriptive requirements, compensating for the vagueness of some of the PC provisions. The Russian Rules of Navigation on the NSR are precisely a case in point.

Unlike the Polar Code, the NSR rules apply to all vessels and contain some mandatory safety requirements which vessels should comply with to obtain permission to enter the NSR, which do not appear in the Polar Code. In particular, the NSR rules include detailed requirements for access to various areas of the NSR that could vary depending on the ice class of vessels, the season and the specific area of navigation. Under the rules, the entire NSR is divided into 28 areas with different weather and ice conditions.[43] For example, under Annexe II of the Rules of Navigation on the Water Area of the Northern Sea Route, vessels without an ice class are allowed to proceed through the NSR from July until 15 November only in ice-free water without an icebreaker's assistance. If ice is present

[37] See Hamann and Peschmann, "Goal–Based Standards."
[38] Jensen, "International Code for Ships Operating in Polar Waters," 70.
[39] Mednikov, "Poljarnyj Kodeks," 14.
[40] *Ibid*.
[41] "Authorizations of RS by flag administrations."
[42] See Sergunin, Gjørv, "The Politics of the Russian Arctic," 10; Vylegzhanin, Ivanov, and Dudikina, "Poljarnyj kodeks," 55; Gavrilov, Dremliuga, and Nurimbetov, "Article 234," 4.
[43] Rules of Navigation, Annexe II.

but the conditions are favourable, a no-ice class vessel should be supported by an icebreaker. In any other ice conditions and months, the navigation of such ships on the NSR is prohibited.[44] On the contrary, ships with a high ice class Arc9 are allowed to sail without icebreaking assistance even in the harshest conditions in the winter season.[45] The Russian rules require shipowners and masters to provide information on the voyage route,[46] set out a reporting system[47] and offer mandatory rules for ice pilotage,[48] etc.

However, the implementation of the Russian national regulation as a safety net for the Polar Code's ambiguity is associated with two major uncertainties. First, the Russian national permission-based regulation of navigation through the NSR with its strict unilateral measures has been a cause of significant concern in some foreign states[49] and has been explicitly challenged by the US government.[50] Obviously, it would be easier to justify the regulatory and enforcement measures introduced by Russia if they were uncontested.

Second, the effectiveness of the Russian law enforcement mechanisms related to the Rules of Navigation on the NSR may be questionable. The mandate of the NSR Administration, responsible for issuing permissions to vessels, is limited to the verification of documents. Decisions on whether or not permission to enter the NSR can be granted do not require the inspection of a vessel. The NSR Administration thus relies on port authorities and reports of violations to maritime administrations of flag states.[51] In 2016, investigating cases of violations of navigation rules within the area of the NSR were delegated to the Federal Security Service of Russia (FSB).[52] However, the breadth of the FSB's mandate remains unclear, as is the responsibility for the detention of non-compliant vessels in the NSR and other on-site enforcement activities.[53]

Against this backdrop, the control over ships' compliance with the PC depends much on Port State Control (PSC). PSC is considered to be an efficient back–up measure to mitigate the risks stemming from the weak control of flag states over their fleets.[54] UNCLOS empowers coastal states to establish particular requirements for the prevention, reduction and control of the pollution of the marine environment as a condition for the entry of foreign vessels into their ports (Art. 211). The 1982 Convention provides for the right of coastal states to conduct inspections of foreign vessels and investigations related to violations of pollution prevention regulations (Art. 218-219). In particular, states which have ascertained that a vessel within one of their ports is in violation of applicable international rules and standards relating to the seaworthiness of vessels, and thereby threatens to damage the marine environment, shall, as far as practicable, take administrative measures to prevent the vessel from sailing.

Since October 2017, Russia has adjusted its national legislation regulating PSC to include PC-related provisions. The current rules require that vessels to which the Polar

44. *Ibid*.
45. *Ibid*.
46. Rules of Navigation, Reg. 5.
47. Rules of Navigation, Reg. 18–24.
48. Rules of Navigation, Reg. 26.
49. Chircop and Czarski, "Polar Code," 11.
50. Diplomatic note from the Government of the United States.
51. Zagorski, "Implementation of the Polar Code," 227.
52. Code of Administrative Offences, Article 23.10.
53. Solski, "Russia," 213.
54. IMO Resolution A.682(17).

Code applies shall have a valid Polar Ship Certificate upon arrival at or departure from a Russian port, as well as during port inspections.[55] Port control in Russia is governed by the Federal Agency for Maritime and River Transport of Russia. The structure of PSC in Russia includes two administrations governing PSC in the Arctic ports – one for the Western part of the Arctic region,[56] and the other for the Eastern part.[57]

However, a major challenge for PSC in terms of enhancing the effectiveness of the Polar Code implementation is the limited mandate of a port administration. Currently, the control of the port state is confined to determining whether the vessel has valid documents and, in case an inspection is needed, whether the standard of the vessel and the crew conforms with the information provided by the Polar Ship Certificate. To assess the seaworthiness of the vessel, PSC officers would need to have a detailed voyage plan and know the current conditions of the areas in which the vessel is going to operate.[58]

As far as the NSR is concerned, Russian port administrations could obviously be in a better position in terms of exchanging information with the Administration of the NSR. For example, port officers can request information necessary for assessing the seaworthiness of the vessel as regards the ice and weather conditions in the specific area the inspected vessel is heading for. On the other hand, port officials can inform the Administration of the NSR about those vessels in violation of the Polar Code and the national requirements to prevent them from obtaining permission to enter the NSR.

However, there are situations when vessels enter polar waters and bypass Russian ports. This is particularly relevant for international transit voyages when vessels call in non-Russian ports of the North Pacific or North Atlantic before entering the Arctic. In such cases, there is a need for close cooperation between the non-Russian port administrations and the NSR Administration for the purposes of identifying substandard vessels. To address this problem, the Arctic states could consider establishing a PSC mechanism involving states from both the North Pacific and North Atlantic regions. Possible options could include extending the mandates of the existing regional mechanisms (the Paris Memorandum of Understanding (MoU) on PSC established for the North Atlantic, the Tokyo MoU– for the North Pacific and the unilateral PSC scheme of the US Coast Guard), which have recently implemented the PC into their schemes, or establishing a separate Arctic-specific PSC scheme.[59] In any event, for the above-mentioned reasons, it is crucial that a potential Arctic PSC instrument should include, apart from traditional provisions (inspection and detention procedures, ship risk profiles, unified data centres, etc.), an information exchange concerning planned routes of ships calling in ports, as well as weather and ice conditions in particular areas of the Arctic Ocean.[60]

[55] "General Rules of Navigation."
[56] "Administration of the Ports of the Western Arctic."
[57] "Administration of the Sea Ports of Primorski Krai and the Eastern Arctic."
[58] Henriksen, "Norway, Denmark," 275–76.
[59] For more details see Todorov, "Coping with Deficiencies in the Polar Code."
[60] Since the current weather forecasting for the NSR is far from perfect and does not always keep up with the rapidly changing Arctic conditions (see Zagorski, "Implementation of the Polar Code," 225; Henriksen, "Norway, Denmark," 294), Arctic states could consider cooperating on this issue as well.

## Conclusion

The adoption of the Polar Code was supported by Russian officials and the shipping community. It did not require significant changes in national legislation, although in 2017, Russia introduced minor amendments to the Rules of Navigation on the NSR and PSC in Russian ports to harmonise them with the PC. Since 2017, vessels subject to PC provisions should have a Polar Ship Certificate onboard, which is verified by port officials and the Administration of the NSR. The Russian Maritime Register has become one of the key agencies responsible for implementing the PC through conducting surveys of vessels and issuing Polar Ship Certificates. Being a recognised organisation under the PC and a party to the IACS, the Russian Register has also been authorised by a significant number of foreign flag administrations active on the NSR to exercise functions related to the implementation of the PC.

According to the data available, since 2017, the violation of the requirement to have a valid Polar Ship Certificate has been one of the grounds for the NSR Administration to deny access to the NSR. However, due to the limited number of voyages and vessels on the NSR to which the Polar Code applies, the number of registered breaches related to PC requirements has not been significant so far. Another possible reason is that the Russian national rules allow vessels with no ice class to enter the waters of the NSR only in limited cases. Therefore, the bulk of the vessels regularly navigating the waters of the NSR are ships specifically designed for Arctic waters.

Still, in light of the anticipated growth of shipping in the Arctic, and the NSR in particular, the risks related to non-compliance with the PC should not be underestimated. Even though the Russian legislation could be an efficient safety net against substandard vessels, the national law enforcement mechanisms could be insufficient, since the Administration of the NSR only verifies that a vessel has the necessary documents and does not check the actual conditions of the vessel. Against this backdrop, much responsibility rests on the shoulders of port administrations, which are empowered to conduct inspections of vessels before they enter the Arctic waters. Given that international transits through the Arctic maritime routes could involve ports of non-regional countries (the North Atlantic and the North Pacific), Arctic states may wish to consider establishing an Arctic-specific PSC mechanism that would engage interested non–Arctic states and include the information exchange needed for the port administrations to assess the actual seaworthiness of a vessel. As one of the main Arctic stakeholders, Russia could initiate discussions on these issues during its upcoming chairmanship of the Arctic Council in 2021-2023.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

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